



*RENEWABLE  
ENERGY  
PROGRAM*

**CALIFORNIA  
ENERGY  
COMMISSION**

# **RENEWABLE ENERGY PROGRAM**

QUARTERLY REPORT TO THE  
LEGISLATURE

January 2004 through March 2004

**COMMITTEE REPORT**

**APRIL 2004  
500-04-017**



**Arnold Schwarzenegger  
Governor**

**CALIFORNIA ENERGY COMMISSION**1516 NINTH STREET  
SACRAMENTO, CA 95814-5512

April 30, 2004

Members of the Senate Energy, Utilities and Communications Committee  
Members of the Senate Budget and Fiscal Review Committee  
Members of the Senate Appropriations Committee  
Members of the Assembly Utilities and Commerce Committee  
Members of the Assembly Budget Committee  
Members of the Assembly Appropriations Committee  
California State Capitol Building  
Sacramento, California 95814

RE: California Energy Commission's *Quarterly Report to the Legislature* Concerning the  
Renewable Energy Program

Honorable Members:

The California Energy Commission is pleased to submit its *Quarterly Report to the Legislature* for the first quarter of year 2004, covering the period January 1 through March 31, 2004. As required by the Public Resources Code, Section 25751(g), the Energy Commission must submit quarterly reports to the Legislature on the fiscal and functional aspects of the Renewable Energy Program.

As reflected in this report, the Energy Commission continues to make excellent progress in implementing the Renewable Energy Program and, in collaboration with the California Public Utilities Commission, in developing the implementation rules for California's Renewables Portfolio Standard.

Should you have any questions or comments concerning this report, please contact Cecile Martin, Legislative Director, at 654-4942 or by e-mail at [cmartin@energy.state.ca.us].

Respectfully submitted,

JOHN L. GEESMAN  
Commissioner and Presiding Member  
Renewables Committee

JAMES D. BOYD  
Commissioner and Associate Member  
Renewables Committee

Enclosures

cc: California Legislative Analyst's Office



# CALIFORNIA ENERGY COMMISSION

## RENEWABLES COMMITTEE

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**Kate Zocchetti**

*Project Manager*

**Robert L. Therkelsen**

*Executive Director*

# **California Energy Commission's Quarterly Report Regarding the Renewable Energy Program (January 1 – March 31, 2004)**

The California Energy Commission (Energy Commission) is pleased to submit its *Quarterly Report to the Legislature on the Renewable Energy Program*, covering the period January 1 through March 31, 2004. The Energy Commission is required to report to the Legislature quarterly on fiscal and functional aspects of the program.<sup>1</sup>

This report describes the Energy Commission's implementation activities over the first quarter reporting period of year 2004, including information regarding awards submitted to the State Controller for payment,<sup>2</sup> the cumulative commitment of claims by program, the demand for funds by program area, and related matters.

Given that many of the Renewable Energy Program's funding mechanisms are ongoing, open solicitations, the amount of available funds is subject to change on a daily basis to meet the changing needs of program participants. Consequently, this report provides a snapshot of the status of the Renewable Energy Program and a forecast of future awards based upon market conditions and program trends at the time of this writing.

Below is background on the Renewable Energy Program, followed by summaries of its implementation activities and expenditures from the Renewable Resource Trust Fund. The remainder of this report discusses activities occurring in each program area during the first quarter of 2004, and summarizes the accomplishments of the Renewable Energy Program to date.

## **Background on the Renewable Energy Program**

In 1996, the California Legislature created the Renewable Energy Program to foster the development of renewable electricity generation technologies and expand the renewable energy market in the state. To administer the program, the Legislature authorized the collection of Investor-Owned Utility (IOU) ratepayer funds from 1998 through 2001. In 2001, the Legislature extended the Renewable Energy Program from 2002 through 2006.

This section summarizes the Renewable Energy Program from 1998 through 2006. For additional details, refer to the Renewable Energy Program's most recent *Annual Project Activity Report to the Legislature*.<sup>3</sup>

## **Renewable Energy Program – 1998 through 2002**

With the goal of maintaining the environmental, economic, and reliability benefits of renewable energy, Assembly Bill 1890 (AB 1890, Brulte, Chapter 854, Statutes of 1996) created the Renewable Energy Program, which became operational in 1998. AB 1890

directed California's large IOUs (Pacific Gas and Electric Company, Southern California Edison, and San Diego Gas & Electric Company) to collect funds from their ratepayers totaling \$540 million over a four-year period and transfer the funds to the Energy Commission for renewable resource development. Senate Bill 90 (SB 90, Sher, Chapter 905, Statutes of 1997) established the Renewable Resource Trust Fund and directed the Energy Commission to administer the funds through distinct program areas, each with funding mechanisms uniquely fashioned to move the renewable energy industry towards market competitiveness. In January 1998, the Energy Commission adopted overall funding directives, eligibility requirements, yearly allocations, and specific guidelines to assist participants in applying for funding.

In September 2000, the Legislature passed Assembly Bill 995 (AB 995, Wright, Chapter 1051, Statutes of 2000) and Senate Bill 1194 (SB 1194, Sher, Chapter 1050, Statutes of 2000), which directed the IOUs to continue collecting \$135 million per year (adjusted for inflation) from 2002 through 2006 from their ratepayers for the Renewable Resources Trust Fund. AB 995 and SB 1194 required the Energy Commission to recommend funding allocations and awards to the Legislature, which were provided in its June 2001 report, *Investing in Renewable Electricity Generation in California (Investment Plan)*.<sup>4</sup> In September 2002, the Legislature incorporated the *Investment Plan* into Senate Bill 1038 (SB 1038, Sher, Chapter 515, Statutes of 2002), which authorized the Energy Commission to administer the program beginning in 2003 through 2006.

In September 2002, the Governor also signed Senate Bill 1078 (SB 1078, Sher, Chapter 516, Statutes of 2002), creating California's Renewables Portfolio Standard (RPS). SB 1078 requires retail sellers of electricity to increase their procurement of eligible renewable energy resources by at least one percent per year so that 20 percent of their retail sales are procured from eligible renewable energy resources by 2017.

In the *Energy Action Plan* adopted in May 2003, the state's three energy agencies — the Energy Commission, the Consumer Power and Conservation Financing Authority, and the California Public Utilities Commission (CPUC) — joined efforts to develop a blueprint for accelerating the RPS goal by attaining the target of 20 percent renewables by 2010.<sup>5</sup> The Energy Commission further underscored this goal in its *Integrated Energy Policy Report*,<sup>6</sup> which recommended that the state enact legislation to accelerate the renewable portfolio standard target to 20 percent by 2010.

### **Renewable Energy Program – 2003 through 2006**

The Renewable Energy Program retained its basic structure under SB 1038 when it began operating in 2003, as outlined below.

- The Existing Renewable Facilities Program offers financial incentives to support existing renewable facilities with varying incentives based on the market competitiveness of California's existing renewable technologies.
- The New Renewable Facilities Program awards financial incentives to encourage new renewable electricity generation projects most likely to become competitive with

conventional technologies. Once they come on-line, eligible projects receive payments for their first five years of generation.

The New Renewable Facilities Program will also provide funding to renewable generators for the above-market costs of meeting the RPS requirements.

- The Emerging Renewables Program grants rebates to lower the costs to customers who purchase and install renewable technologies for on-site generation.
- Customer Credit incentives allowed renewable providers to offer electricity products to their customers at prices competitive with conventional electricity products. In April 2003, the Energy Commission approved discontinuing this program after completion of payments to providers for 2002 and early 2003 activity.
- The Consumer Education Program, through grants and contracts, increases public awareness of renewable energy and its benefits, and encourages the support of renewable energy and purchases of renewable energy technologies.

SB 1038 required the Energy Commission to develop and submit to the Legislature a comprehensive renewable generation resource plan by December 1, 2003. The Energy Commission submitted its *Renewable Resources Development Report* (RRDR) to the Legislature in November 2003.<sup>7</sup> The RRDR describes the renewable resource potential in California and the other states in the Western Electricity Coordinating Council (WECC), and discusses the cost trends of renewable energy technologies and installed capacity of renewable energy. The report provides the staff's estimates of the renewable energy required to meet California's RPS target of 20 percent renewable energy by 2017, along with the accelerated schedule of meeting the target by 2010. The report also highlights key policy issues affecting the implementation of the RPS, and presents recent research and development activities related to renewable energy.

As discussed in the RRDR, the Energy Commission concludes that, with proposed renewable projects and the significant untapped renewable resources in California and the other WECC states, there is an ample supply of renewable energy resources available to meet the RPS and the accelerated RPS targets. The cost of renewable energy is expected to continue to decline, with some technologies and applications nearly competitive with conventional power generation today. The report notes that the following key policy issues will require further attention:

- Expanding the transmission system to accommodate renewable resource development,
  - Maintaining adequate public-goods-charge funds to support any above-market costs for renewable purchases, and
  - Determining the role of publicly-owned utilities in meeting the RPS goals
- The Energy Commission adopted new program guidelines for the Existing Renewable Facilities,

Emerging Renewables, and Consumer Education Programs in February 2003, and for the Customer Credit Program in May 2003.

In September 2003, the governor signed Senate Bill 704 (SB 704, Florez, Chapter 480, Statutes of 2003), which requires the Energy Commission to allocate \$6.0 million from the Renewable Resource Trust Fund for incentives to electricity-generating facilities that increase their utilization of qualified agricultural biomass for the 2003-2004 fiscal year. During the first quarter of 2004, the Energy Commission reallocated unexpended funds from the Existing Renewable Facilities Program (funds under SB 90) and adopted guidelines to implement the Agricultural Biomass to Energy Program (AgBio Program).<sup>8</sup> The AgBio Program is discussed in the Existing Renewable Facilities Program section of this report.

In January 2004, the Energy Commission released drafts of new eligibility guidelines for the RPS Program, and updated program guidelines for the New Renewable Facilities Program and the Overall Guidelines for the Renewable Energy Program. The Energy Commission released these final draft guidelines in the form of guidebooks in March 2004, and expects to adopt them at a Business Meeting in April 2004.

The next section discusses funding and expenditures from the Renewable Resources Trust Fund for this quarter and provides a summary of the cumulative funding to date.

## **Renewable Resources Trust Fund**

During the first quarter of 2004, the Energy Commission disbursed over \$30.85 million to program participants. By the end of the first quarter, the Energy Commission had disbursed a total of \$429.4 million and encumbered \$259 million since the program's inception.

In April 2003, in response to the Renewables Committee's (Committee) recommendation to discontinue the Customer Credit Program, the Energy Commission approved reallocating Customer Credit funds collected under SB 1038 as follows:

- 10 percent to the Consumer Education Program (specifically for the RPS tracking and verification program),
- 45 percent to New Renewable Facilities Program, and
- 45 percent to Emerging Renewables Program.

The Energy Commission is expected to approve the reallocations to the Emerging Renewables and Consumer Education Programs in April 2004. The funds previously approved for reallocation to the New Renewable Facilities Program will remain in the Customer Credit Program for possible reallocation in the future.

During the first quarter of 2004, the Committee recommended the transfer of \$10,000,000 in interest earnings on funds in the Renewable Resource Trust Fund to supplement the funding for Emerging Renewables Program rebates. In accordance with

the Overall Renewable Energy Program Guidebook, interest earned on the fund may be used to augment funds for a program area at the Commission's discretion, as recommended by the Committee.<sup>9</sup> The Energy Commission is also scheduled to consider the Committee's recommendation in this regard in April 2004.

Table I compares the initial allocation of Renewable Resource Trust Fund monies to administer the Renewable Energy Program under SB 1038 with the Committee's reallocation recommendations (excluding the interest reallocation).

**Table I - Renewable Resource Trust Fund  
SB 1038 Allocations vs. Recommended Program Reallocations**

| <b>Program</b>                       | <b>Percent of Total<br/>(SB 1038)</b> | <b>Percent of Total<br/>(Reallocations)</b> |
|--------------------------------------|---------------------------------------|---------------------------------------------|
| <b>Existing Renewable Facilities</b> | 20.0                                  | 20.0                                        |
| <b>New Renewable Facilities</b>      | 51.5                                  | 51.5                                        |
| <b>Emerging Renewables</b>           | 17.5                                  | 22.0                                        |
| <b>Consumer Education</b>            | 1.0                                   | 2.0                                         |
| <b>Customer Credit*</b>              | 10.0                                  | 4.5                                         |
| <b>TOTAL</b>                         | 100%                                  | 100%                                        |

\* The Energy Commission had previously recommended that these funds be reallocated to the New Renewable Facilities Program; at this time the Committee recommends that they remain in the Customer Credit Program for future reallocation.

The participating utilities fulfilled their requirements to collect \$540 million for the program under SB 90. In addition to those funds, \$15 million was transferred from the state's General Fund to the Emerging Renewables Program for rebates pursuant to Assembly Bill 29X (AB 29X, Kehoe, Chapter 8, Statutes of 2001), bringing the fund total to \$555 million. However, Senate Bill 19X (SB 19X, Chesbro, Chapter 3, Statutes of 2003) subsequently directed the Energy Commission to transfer the unused funds designated for rebates to customers of Publicly Owned Electric Utility (POEU) service areas to the General Fund to help reduce the state's budget deficit. The transfer of these funds, which total about \$6.3 million, reduced the balance of total funds available for the program under SB 90 to \$548.7 million.

From January 2002 through March 2004, the participating utilities collected \$305.7 million from their ratepayers under SB 1038. The Budget Act of 2002 directed the Energy Commission to loan \$150 million to the General Fund and \$8.9 million to the California Consumer Power and Conservation Financing Authority. According to the Budget Act, the loan to the General Fund is not intended to adversely affect the Renewable Energy Program, and the California Consumer Power and Conservation Financing Authority (CPA) is required to repay \$1 million by June 30, 2003, with the remainder to be repaid by June 30, 2004. As of March 2004, the CPA has repaid over \$3.25 million of these funds.



Table II provides a financial summary of the Renewable Resource Trust Fund at the conclusion of the first quarter of 2004, reflecting cumulative funds collected, disbursed, reallocated, and encumbered since the beginning of the program in 1998, and funds loaned and transferred from and within the fund, as discussed above. Table II also shows funds collected, disbursed, encumbered, and reallocated during this quarter.

**Table II - Renewable Resource Trust Fund (\$ Millions)<sup>10</sup>**  
**Funding and Expenditures as of March 31, 2004**

|                                                 | Existing Renewable Facilities | New Renewables         | Emerging Renewables   | Customer Credit | Consumer Education   | Total                  |
|-------------------------------------------------|-------------------------------|------------------------|-----------------------|-----------------|----------------------|------------------------|
| <b>Collected Funds (SB 90)</b>                  | 243.000                       | 162.000                | 69.000 <sup>11</sup>  | 75.600          | 5.400                | 555.000 <sup>12</sup>  |
| <b>Collected Funds (SB 1038)</b>                | 61.139                        | 157.433                | 53.497                | 30.570          | 3.057                | 305.695                |
| <b>Total Disbursements</b>                      | -193.075 <sup>13</sup>        | -35.907                | -130.378              | -65.307         | -4.755               | -429.424               |
| <b>Intra-fund Reallocations<sup>14</sup></b>    | -68.000                       | 33.800                 | 57.956                | -26.813         | 3.057                | 0.000                  |
| <b>Intra-fund Transfers</b>                     | 0.000                         | -29.733                | 29.733                | 0.000           | 0.000                | 0.000                  |
| <b>General Fund Transfer</b>                    | 0.000                         | 0.000                  | -6.308 <sup>15</sup>  | 0.000           | 0.000                | -6.308                 |
| <b>Subtotal</b>                                 | 43.064                        | 287.593                | 73.500                | 14.049          | 6.759                | 424.964                |
| <b>Encumbrances</b>                             | -22.199 <sup>16</sup>         | -159.893 <sup>17</sup> | -73.500 <sup>18</sup> | -0.293          | -3.702 <sup>19</sup> | -259.001               |
| <b>Committed Funds<sup>20</sup></b>             | 20.865                        | 127.700 <sup>21</sup>  | 0.000                 | 13.756          | 3.057 <sup>22</sup>  | 165.378                |
| <b>Loan Balance</b>                             |                               |                        |                       |                 |                      | -155.645 <sup>23</sup> |
| <b>Committed Funds Less Loan Balance</b>        |                               |                        |                       |                 |                      | 9.733                  |
| <b>1<sup>st</sup> Quarter '04 Disbursements</b> | <b>-8.503<sup>24</sup></b>    | <b>-2.748</b>          | <b>-19.338</b>        | <b>0.000</b>    | <b>-0.258</b>        | <b>-30.847</b>         |

The Renewable Energy Program administers the Renewable Resources Trust Fund via ongoing solicitation and functions in response to fluctuations in market prices and other uncertainties. Fund amounts in Table II change daily as the Energy Commission encumbers and commits funds and makes payments to program participants for the following activities:

- The Existing Renewable Facilities Program for payments to eligible existing facilities and for reallocation to the New Renewable Facilities Program.
- The AgBio Program for payments to electricity-generating facilities that increase their utilization of qualified agricultural biomass.

- The New Renewable Facilities Program for Supplemental Energy Payments (SEPs), which will begin when the RPS and the New Renewable Facilities Program Guidebooks are finalized, and for on-line projects with funding award agreements.
- The Emerging Renewables Program for reservations and rebates for eligible systems.
- The Customer Credit Program for payments for generation in 2002 and early 2003.
- The Consumer Education Program for grant and contract activities, and to track and verify RPS purchases.

The remainder of this report provides details on the Renewable Energy Program's implementation, focusing on the first quarter of 2004.

## **Renewable Energy Program Implementation**

Table III highlights the key activities that occurred in each program area during the first quarter of 2004, and lists the activities expected to occur during the second quarter. The staff's estimates of activities and funding expected in the upcoming quarter are based on program trends at the time of this writing, and actual project activities and funding may vary from these estimates.

**Table III - Renewable Energy Program  
First Quarter 2004 Program Implementation**

| Implementation Activities<br>and Funding Activities:<br>January – March 2004                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Expected Funding and<br>Implementation Activities:<br>April – June 2004                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Renewables Portfolio Standard Program</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <ul style="list-style-type: none"> <li>The Energy Commission released draft Guidebooks for implementing the RPS, held a Committee Hearing, and subsequently released final draft Guidebooks.</li> <li>The Energy Commission and Western Governors' Association developed an organizational structure for soliciting public input into developing WREGIS.</li> <li>Committees met to implement WREGIS, including developing draft recommendations for the operating rules and functional requirements of WREGIS, as well as determining the institutional home and governance structure of WREGIS.</li> </ul>                                                                                                                                                                                                      | <ul style="list-style-type: none"> <li>The Energy Commission will consider adopting guidelines to implement the RPS.</li> <li>The Energy Commission will begin certifying facilities as eligible for the RPS.</li> <li>The Energy Commission will hire a contractor to conduct a Feasibility Study Report for WREGIS.</li> <li>The Operational Rules Committee will complete the Draft <i>WREGIS Interim Operating Rules: Functional Requirements</i>.</li> <li>The Institutional Committee will complete its recommendation for where to house WREGIS.</li> </ul>                                                                          |
| <b>New Renewable Facilities Program</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <ul style="list-style-type: none"> <li>Payments totaling over \$2.7 million were made this quarter.</li> <li>To date, payments totaling \$35.9 million have been made to 40 on-line facilities for over 3,200 gigawatt-hours (GWh) of new renewable electricity generation.</li> <li>Forty-five projects are currently on-line and producing electricity, representing 429 megawatts (MW) of new renewable capacity.</li> <li>A 4.62-MW wind facility came on-line this quarter.</li> <li>One 2-MW landfill gas project reached the end of its funding period.</li> <li>The Committee released an initial draft <i>New Facilities Program Guidebook</i> and held a hearing in February 2004 to receive public comments on the draft. A final draft of the <i>Guidebook</i> was released in March 2004.</li> </ul> | <ul style="list-style-type: none"> <li>The construction of new projects will continue, as will payments to on-line facilities.</li> <li>The Energy Commission will finalize Funding Award Agreements with winning bidders in the second and third auctions.</li> <li>Work will continue with the utilities and the CPUC to implement SB 1078 and SB 1038.</li> <li>The Energy Commission is scheduled to consider adopting the final <i>New Facilities Program Guidebook</i> at its April 21, 2004 Business Meeting.</li> <li>Eight projects totaling 41.6 MW of capacity will reach the end of their five-year funding periods.</li> </ul> |
| <b>Existing Renewable Facilities Program</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <ul style="list-style-type: none"> <li>About \$4.6 million in payments were made this quarter for 1,321 GWhs of generation in October, November and December 2003, and January 2004.</li> <li>Payments totaling \$189.2 million have been made to existing facilities for generation from 1998 through January 2004.</li> <li>A total of 378 facilities are registered as renewable suppliers, with 102 eligible for funding from the Existing Renewable Facilities Program (ERFP).</li> <li>ERFP rollover funds total \$18.7 million.</li> </ul>                                                                                                                                                                                                                                                                 | <ul style="list-style-type: none"> <li>An estimated \$2.4 million in payments to eligible existing facilities are expected during the second quarter of 2004.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <ul style="list-style-type: none"> <li>Payments from the AgBio Program total \$3.97 million.</li> <li>Funds encumbered for the AgBio Program total \$506,940.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | <ul style="list-style-type: none"> <li>Payments totaling \$550,000 are expected to be made next quarter to one AgBio facility.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Consumer Education Program</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <ul style="list-style-type: none"> <li>The American Wind Energy Association delivered its final report and invoice during this quarter.</li> <li>Payments to grant recipients totaled \$257,628 this quarter.</li> <li>To date, disbursements for consumer education activities total over \$4.76 million.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | <ul style="list-style-type: none"> <li>The staff expects to receive Energy Solutions' final invoice and report including deliverables next quarter.</li> <li>The Energy Commission will consider adopting a revised Guidebook that incorporates tracking and verifying renewable energy generation activities.</li> </ul>                                                                                                                                                                                                                                                                                                                   |

| Implementation Activities and Funding Activities:<br>January – March 2004                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Expected Funding and Implementation Activities:<br>April – June 2004                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Emerging Renewables Program</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <ul style="list-style-type: none"> <li>To date, payments for over 8,200 installed systems total over \$130 million, representing about 32 MW of distributed capacity.</li> <li>Payments totaling over \$19.3 million were paid this quarter for 1,158 installed systems in IOU service areas, for about 4.9 MW of capacity.</li> <li>Funds encumbered for installing almost 4,600 systems in IOU service areas total \$73.5 million, representing about 19 MW of capacity.</li> <li>Approximately \$40 million of allocated funds will be available for rebates through 2006.</li> <li>Over 600 reservation requests were received this quarter for systems in IOU service areas.</li> <li>Efforts focused on processing the record number of applications submitted in December 2003.</li> <li>KEMA-Xenergy began conducting field verifications of installed systems to verify that systems installed align with their corresponding paperwork submittals.</li> <li>Updated public information continued to be made available on the Energy Commission's website.</li> </ul> | <ul style="list-style-type: none"> <li>The Energy Commission will continue to process reservations and pay rebates for qualified system installations. Based on application submittal rates, program funding is expected to be depleted in 2004.</li> <li>Changes to further improve the program will be brought before the Commission for adoption in the second quarter of 2004. Changes are expected to include a new solar schools program to offer rebates for public schools, K-12.</li> <li>Lists of eligible technology equipment and fund availability will continue to be updated online.</li> <li>KEMA-Xenergy will continue to conduct verification site visits for a sample of installed systems.</li> <li>Online services will become available for participants to check the status of their reservation requests.</li> </ul> |
| <b>Customer Credit Program</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <ul style="list-style-type: none"> <li>No payments were made this quarter. Payments to date total \$65.3 million.</li> <li>The Energy Commission will not make the remaining payments until all of the providers submit revised audits.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | <ul style="list-style-type: none"> <li>The Energy Commission expects to make payments totaling \$30,000 to remaining providers in the second quarter of 2004.</li> <li>If payments are completed to all eligible providers, the Energy Commission will discontinue Customer Credit Program activities.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |

The next sections of this report discuss the noteworthy activities that occurred in each program area during the first quarter of 2004, followed by a brief summary of the Renewable Energy Program's progress in meeting its goals and objectives.

## Renewables Portfolio Standard

As directed by SB 1078, California's RPS requires retail sellers of electricity to increase their procurement of eligible renewable energy resources by at least 1 percent per year so that 20 percent of their retail sales are procured from eligible renewable energy resources by 2017.

The New Renewable Facilities Program will provide SEPs to renewable electricity generators for the above-market costs of renewable energy. However, SB 1078 states that if SEPs are insufficient to cover the above-market costs of eligible renewable energy resources, an electrical corporation could limit its annual procurement obligation to the quantity of eligible renewable energy resources that can be procured with available SEPs. Thus, the state's success in achieving the RPS target may depend largely on the availability of the funds in the New Renewable Facilities Program.

The next section of this report discusses the Energy Commission's and the CPUC's roles and activities in implementing the RPS.

### Guidelines for RPS Implementation

This quarter, the Committee developed initial and final draft guidelines, in the form of Guidebooks, for implementing the RPS. The initial draft Guidebooks were publicly released on January 26, 2004. Developed as part of an ongoing collaborative process between the Energy Commission and the CPUC, the Guidebooks are based on the following:

- The law as set forth in SB 1038 and SB 1078 and revised under Senate Bill 183 (Sher, Chapter 666, Statutes of 2003) and Senate Bill 67 (Bowen, Chapter 731, Statutes of 2003);
- The Renewables Portfolio Standard Decision on Phase 1 Implementation Issues;<sup>25</sup>
- The Renewables Portfolio Standard Decision on Phase 2 Implementation Issues;<sup>26</sup>
- Staff analyses, advice from the Energy Commission's technical support contractors, and public input.

On February 5, 2004, the Committee held a hearing to solicit stakeholder input on the initial draft Guidebooks. The Committee subsequently revised the initial drafts and released the following three final draft Guidebooks on March 19, 2004:

1. *Renewables Portfolio Standard Eligibility Guidebook* – This guidebook describes the proposed eligibility requirements and process for certifying eligible renewable resources for California's Renewables Portfolio Standard (RPS) and Supplemental Energy Payments (SEPs). It also describes how the Energy Commission will track and verify compliance with the RPS using an interim tracking process.

2. *New Renewable Facilities Program Guidebook* – This document describes the conditions to qualify for and receive SEPs from the New Renewable Facilities Program element of the Energy Commission’s Renewable Energy Program.
3. *Overall Program Guidebook for the Renewable Energy Program* – This document was adopted in February 2003 to govern the Renewable Energy Program. It was revised to address administration of the RPS and the New Renewable Facilities Program.

During the next quarter, the Energy Commission will consider adopting the draft Guidebooks. Once adopted, the Energy Commission may begin receiving and processing applications for facilities to become certified as eligible for California’s RPS.

### **Western Renewable Energy Generation Information System (WREGIS)**

In addition to developing guidelines, the Energy Commission, together with the Western Governors’ Association (WGA), continues to develop a regional electronic tracking system, called the Western Renewable Energy Generation Information System (WREGIS), for the RPS program. During the first quarter of 2004, the Energy Commission and the WGA developed an organizational and procedural structure to seek and incorporate public input on the tracking system.

On January 12 and 13, 2004, the Energy Commission and the WGA conducted a kick-off meeting to solicit stakeholder involvement in WREGIS development. The meeting provided a forum to inform parties about the progress to date and invite participation in various committees created to implement the development of WREGIS. A description of the organizational structure for stakeholder input into WREGIS development follows.

**Operational Rules Committee:** This Committee consists of stakeholders interested in developing specific technical recommendations regarding WREGIS’ operational issues. The Operational Rules will define specific operations, such as how accounts are established, data are received in the system, certificates are issued, transferred between accounts, and retired, etc. This committee will be responsible for drafting the Interim Operating Rules for WREGIS.

The initial purpose of preparing Interim Operating Rules is to refine the scope of work needed to develop a contractor solicitation to design the WREGIS software. Once a solicitation is issued and a contractor selected, the Operational Rules Committee will continue to work with the contractor on refining operating rules and functional requirements, recognizing that there might be practical limitations of software design that could influence the operations of WREGIS. The Operational Rules Committee will meet throughout the development of the Final Operating Rules.

Sub-committees of the Operational Rules Committee will meet as necessary to research and provide recommendations on specific data acquisition questions and any other special needs.

**Data Interface Sub-Committee:** This committee will identify how renewable generation data is transferred from the control areas to WREGIS, and establish the protocols and requirements for WREGIS to access generation data necessary to create renewable energy certificates.

**Special Needs Sub-Committee:** Special Needs Sub-Committees will be formed as required to make recommendations on any operational issues that require extra technical deliberation or are state-specific. For example, a sub-committee will be formed to discuss the special requirements for including small on-site generation in WREGIS. Similarly, sub-committees may be formed to address other operational issues that need extra research or discussion.

**Institutional Committee:** This committee consists of key individuals who are in a position to provide guidance on institutional and governance issues for WREGIS. The committee will be responsible for preparing recommendations on the institutional structure, legal requirements, and governance policies necessary to create an institution to support and maintain the on-going operations of WREGIS.

**WREGIS Working Group:** Although not a formal decision-making body, this group of interested stakeholders will have opportunities to comment via e-mail on recommendations, reports, and other documents that come out of individual committees.

**WREGIS Stakeholder Advisory Committee:** The purpose of the Stakeholder Advisory Committee is to advise the WGA and the Energy Commission on designing WREGIS so that it meets the policy goals of the WGA and the Energy Commission, the legislative and regulatory mandates of California, and to the extent possible, of other states and provinces in the western interconnect. The WREGIS Stakeholder Advisory Committee will have balanced representation from the stakeholder groups who will be using the WREGIS system; however, members of the Stakeholder Advisory Committee do not represent a constituency in any formal capacity, and serve in an advisory capacity only.

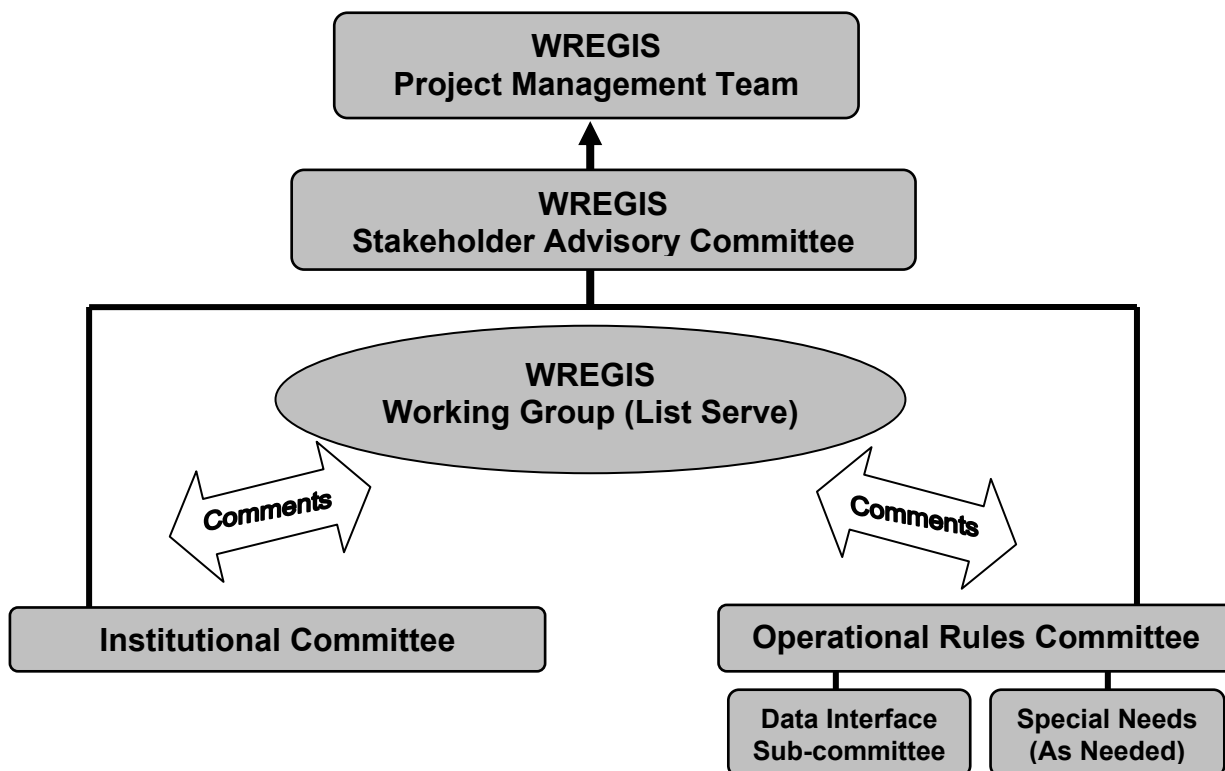
**WREGIS Project Management Team:** The Project Management Team is responsible for establishing strategic direction for the project, and for developing and executing the project management plan. The team designs the project goals and timelines; establishes the decision making process for the project; formulates the project scope and creates a budget and work plan; hires technical support; manages contracts; directs the communications and outreach with stakeholder groups; and appoints working committee co-chairs.

The Project Management Team will prepare and deliver a final report describing recommendations on WREGIS specifications to the Energy Commission and WGA. This team consists of representatives of the financial sponsors of WREGIS, i.e. the Energy Commission, WGA, and the Western Regional Air Partnership (WRAP). The Renewable Energy Program's technical support contractors, KEMA-Xenergy and

Center for Resource Solutions (CRS), provide technical expertise to the Project Management Team.

Figure I shows the organizational structure of the various committees and the WREGIS Project Management Team.

**Figure I - WREGIS Organizational Structure**



This quarter, the Project Management Team, Operational Rules Committee, Data Interface Sub-Committee, and Institutional Committee met regularly to develop draft recommendations for implementing WREGIS. The Working Group is expected to begin activities next quarter. Although the Stakeholder Advisory Committee has not yet been established, the Energy Commission expects members to be selected in the next quarter, after which the Stakeholder Advisory Committee will be asked to comment on the recommendations of the various other committees.

During the next quarter, the Project Management Team will review the Project Management Team's draft *WREGIS Interim Operating Rules: Functional Requirements*, and the Institutional Committee's report on its recommendations on the institutional home for WREGIS.



Work will begin next quarter on a Feasibility Study Report (FSR) for WREGIS, due for completion in either the third or the fourth quarter of 2004. The FSR is the first step in the procurement process for acquiring the software system for WREGIS.

The next section briefly describes the implementation activities led by the CPUC, in collaboration with the Energy Commission, to develop the RPS rules.

### **Energy Commission and California Public Utilities Commission Collaboration**

Since December 2002, the CPUC has been addressing its responsibilities in implementing the RPS through its proceeding, *Order Instituting Rulemaking to Establish Policies and Cost Recovery Mechanisms for Generation Procurement and Renewable Resource Development*.<sup>27</sup> In June 2003, in consultation with the Energy Commission, the CPUC adopted rules outlining decisions on the following:

1. The process for determining market price referents (MPRs) for electricity from non-renewable sources. Market price referents are estimates of the amount that IOUs would pay for each energy type if they were not purchasing renewable power. Approved contract costs above the referents will be covered by the Public Goods Charge (PGC), administered by the Energy Commission in the form of SEPs, subject to fund availability.
2. The process for the IOUs to follow in selecting the "least cost" bidders of renewable energy that "best fit" the IOU's resource needs.
3. Flexible rules for compliance with annual procurement targets.
4. A process for establishing the standard terms and conditions to be used by all IOUs in contracting for eligible renewable energy resources.

To prepare for RPS solicitations, a number of details regarding the implementation of the June 2003 decision must be addressed. One issue is to develop the specifications for a "least-cost, best-fit" process. The IOUs must rank the bids they receive in a process that accounts for the "...ongoing utility expenses resulting from integrating and operating eligible renewable energy resources." In response to the need for this analysis, the Energy Commission assembled a team of independent experts to develop a methodology for assessing the costs associated with integrating renewable resources into California's electricity system. The results of the analysis provided cost information that will be used by the utilities as they compare bids from renewable generators competing to offer electricity to meet the RPS.

Phase 1 of this effort was completed in late 2003. On February 20, 2004, the Energy Commission held a workshop inviting comments on *Phase I: Findings and Results of Costs of Integrating Renewables*. The workshop was presented by the RPS Integration Methods Group, led by the California Wind Energy Collaborative (CWEC) and included staff and researchers from the California Independent System Operator (Ca ISO), Oak

Ridge National Laboratory and National Renewable Energy Laboratory. The Energy Commission adopted the *Phase I Report* in February 2004..<sup>28</sup>

This quarter, the CPUC also made progress on specifying the methodology for setting the MPR. On March 22, 2004, in consultation with the Energy Commission, the CPUC-CEC Collaborative staff released *MPR Methodologies to Determine the Long-Term Market Price of Electricity for Use in California Renewables Portfolio Standard Solicitations*.

During the next quarter, in collaboration with the Energy Commission, efforts by the CPUC are expected to include the following:

- Hold a workshop on the methodology for determining MPRs for electricity from non-renewable sources.
- Adopt Standard Contract Terms and Conditions agreed upon by the parties to the extent possible, and ruled on as necessary.
- Open an Order Initiating Rulemaking to address RPS issues separately from the general procurement proceeding.

The Energy Commission will continue working collaboratively with the CPUC to resolve outstanding RPS implementation issues in preparation for the initial RPS procurement solicitations, which the IOUs are expected to hold in summer 2004.

## **New Renewable Facilities Program**

The Energy Commission released a draft Guidebook for the New Renewable Facilities Program on March 19, 2004, and will consider its adoption at its April 21, 2004, Business Meeting. These guidelines reflect changes to the program under the direction of SB 1038 and SB 1078, and specify the eligibility requirements that projects must meet to qualify for SEPs under the RPS. SEPs, payments to cover eligible renewable generators' above-market costs of meeting the RPS requirements, will be funded by the New Renewable Facilities Program, providing funds are available.

Winners from the three New Renewable Facilities Program auctions held in 1998, 2000, and 2001 continue to be developed and come on-line in accordance with the guidelines from the initial program.

Among the successful bidders in those auctions, 70 projects continue to hold funding awards, with 45 projects on-line, contributing 429 MW of new renewable generating capacity to California's electricity supply. One project, a 2-MW landfill gas facility, has received its full funding award and will not receive any additional payments from the Energy Commission. During the second quarter of 2004, another five landfill gas projects totaling 21 MW, and two wind projects totaling 18.6 MW, will reach the end of their funding periods.

During the first quarter of 2004, one 4.62-MW wind project came on-line. This project was a winner in the 2000 auction. Under that auction's rules (designed to hasten projects coming on-line during the energy crisis), projects coming on-line after July 1, 2003 are limited to a maximum of 50 percent of their original bids. This project will consequently have its funding award reduced by 50 percent based on its on-line date of December 30, 2003.

The Energy Commission expected a second wind project to come on-line during the first quarter of 2004, but the project was delayed due to uncertainties surrounding the extension of the federal production tax credit (PTC). The 1.5-cents-per-kilowatt-hour (adjusted for inflation) tax credit expired on December 31, 2003, without being extended by Congress. The loss of the PTC has slowed the development of other wind projects participating in the program, and produced a severe slowdown in wind development nationwide, which is not expected to end until the PTC is restored.

Currently, 40 of the 45 on-line projects have received payments from the Energy Commission. To date, these projects have received a total of \$35.9 million in payments from the New Renewable Facilities Program, including more than \$2.7 million paid this quarter. Table IV summarizes these on-line projects, which have generated approximately 3,200 gigawatt-hours (GWh) of new renewable electricity.

**Table IV - New Renewable Facilities Program  
Summary of On-Line Projects (June 1999 to March 2004)**

| <b>Technology</b> | <b>MW On-Line</b> | <b># of Projects</b> |
|-------------------|-------------------|----------------------|
| Biomass           | 11.30             | 2                    |
| Digester Gas      | 2.05              | 1                    |
| Geothermal        | 59.00             | 2                    |
| Landfill Gas      | 37.19             | 14                   |
| Small Hydro       | 31.25             | 3                    |
| Waste Tire        | 0                 | 0                    |
| Wind              | 288.32            | 23                   |
| <b>Total</b>      | <b>429.11</b>     | <b>45</b>            |

Five facilities totaling 104.27 MW of capacity are delivering power to the grid, although they have not yet received incentive payments. These facilities include two wind facilities (75.6-MW and 4.62-MW), a 2.05-MW digester gas facility, a 20-MW small hydro facility, and a 2-MW landfill gas facility. The Energy Commission has not made payments to three of these facilities because they have not yet submitted invoices; the other two facilities have not demonstrated to the Energy Commission's satisfaction that they are eligible to receive payments under the program guidelines.

The Energy Commission may cancel funding awards totaling \$17.8 million for four wind projects totaling 113 MW from the first auction: three owned by Enron Wind Development Corporation and one owned by Painted Hills Wind Developers (an Enron affiliate). The project developers face award cancellations for failing to submit required information and maintain appropriate contact with the Energy Commission. In March 2002, the Energy Commission informed the project developers of its intent to cancel their funding awards, and the project developers then submitted a joint Petition for Reconsideration to the Energy Commission. However, any decision to cancel these awards is complicated by Enron's bankruptcy status. The Energy Commission's legal counsel is consulting with bankruptcy law experts in this matter, and the Committee hopes to make a decision on the petition during 2004.

## **Existing Renewable Facilities Program**

Among the 378 facilities that are registered with the Energy Commission as existing renewable suppliers, 102 facilities are eligible for funding from the Existing Renewable Facilities Program (ERFP). During the first quarter of 2004, the Energy Commission paid over \$4.6 million to these eligible facilities, with the entirety going to biomass and solar thermal facilities for 1,321 GWh of generation from October 2003 through January 2004. To date, payments total \$189.2 million to all participating existing facilities.

From 1998 through 2000, the Energy Commission made payments totaling \$633,788 to Enron Wind LLC. During the second quarter of 2003, the bankruptcy court approved a settlement agreement between the Energy Commission and Enron Wind LLC for repayment of this amount due to Enron's misrepresentation of the ownership status of some of its facilities. Enron Wind LLC is repaying these funds over a two-year period, with the first repayment made during the third quarter of 2003. To date, Enron has repaid a total of \$194,351.

The ERFP rollover amount currently stands at \$18.7 million.<sup>29</sup> The Energy Commission previously determined that it would reallocate the funds remaining from the initial Existing Account under SB 90 to the New Renewable Facilities Program to cover the costs of its second and third auctions. The amount of funds that will eventually be needed for New Renewable Facilities Program projects is currently unknown. The staff continues to evaluate this amount (auction winners could drop out, qualify for additional incentives, or have their funding awards reduced or cancelled), and when identified, the staff will recommend reallocating those funds accordingly.<sup>30</sup>

Although a separate program, the AgBio Program is discussed in the Existing Renewable Facilities Program section for purposes of this report.

## **Agricultural Biomass to Energy Program**

Nine participants have registered their facilities with the Energy Commission for funding from the new AgBio Program. Of these, the Energy Commission approved eight for funding; the ninth facility requires a final determination of its 5-year average qualified agricultural biomass (QAB) purchases. The Energy Commission expects to receive this information in April 2004, and to approve this facility for funding shortly thereafter.

In March 2004, the Energy Commission issued payments totaling \$3.97 million to seven participants for QAB purchases from July through December 2003. The Energy Commission expects to pay an additional \$550,000 to the facility lacking final approval as mentioned above.

The remaining facility did not exceed its historical QAB purchases by at least 10 percent from July through December 2003. That facility received a reservation of \$506,940, and will receive payment upon exceeding its 5-year average annual QAB purchases by at

least 10 percent. If unable to do so by June 30, 2004, this facility will forfeit these reserved funds. If the participant relinquishes its reservation prior to that date, the funds will be made available to the other eligible participants. However, if these funds are not relinquished prior to June 30, 2004, and the facility does not meet all necessary requirements, the funds will revert to the Renewable Resources Trust Fund.

Currently, over \$5.03 million of the \$6 million available has been paid, is expected to be paid, or has been reserved, leaving only slightly less than \$1 million available for QAB purchases from January through June 2004. During the next quarter, the Energy Commission anticipates fully expending these remaining funds for January and February 2004 purchases.

## Consumer Education Program

The Energy Commission has funded two public awareness campaign contracts and 20 grant projects. During the first quarter of 2004, payments for grants totaled \$257,628, bringing Consumer Education Program funds dispersed to contractors and grant recipients to date to nearly \$4.76 million.

The grant recipients added an average of 115 percent in matching funds or in-kind services to the Energy Commission's funds for their projects. In many cases, the Energy Commission's grant monies not only funded grant project activities, but also provided seed money that enabled the grant recipients to conduct ongoing activities beyond the duration of their grant project terms. The next section discusses the grant project activities conducted during this quarter.

### Grant Projects

The following grant project activities were conducted during the first quarter of 2004:

- The Energy Solutions grant project for the new construction industry is finalizing two case study projects and the design of the RE-New Construction Tool Kit.
- The term ended for the American Wind Energy Association's (AWEA) grant project, a handbook titled, *Permitting Small Wind Turbines: Learning from the California Experience*. The AWEA staff completed their promotional activities and submitted a final invoice and report to the Energy Commission in February 2004.

An article highlighting the handbook appeared in the Local Government Commission's Jan/Feb 2004 issue of its newsletter, *Currents*. In February 2004, Energy Commission and AWEA staff addressed a meeting of the California County Planning Commissioners' Association in Sacramento, with 42 of California's 58 county planning directors in attendance. As in previous outreach opportunities, this meeting was a venue for the project staff to deliver a presentation and distribute handbooks directly to the Association's membership. AWEA has distributed about 350 handbooks throughout California and the western states, and the Energy Commission has distributed 150 copies since September 2003. In the period between September 2003 and February 2004, the handbook was downloaded more than 24,000 times from the AWEA Small Wind website. The handbook has been well-received by the wind industry; 150 copies were distributed at the American Wind Energy Association's annual conference in Chicago on March 27-28, 2004.

As discussed in the AWEA's final report, the number of wind turbines and total capacity installed during the four-month periods before and after the Handbook publication date shows a modest increase, indicating that it may be too early to assess the direct impact the Handbook will have on the permitting and placement of small wind turbines in California's counties.

The AWEA staff leveraged over 100 percent of this project's cost in matching funds or in-kind contributions, including over \$175,000 for the AWEA's staff expenses and \$67,200 of earned media.

## **Contracts**

The two contracts funded by the Consumer Education Program focused on raising consumer awareness of renewable energy and consumer adoption of renewable energy technologies. One outcome of the most recent public awareness campaign is the Renewable Energy Alliance partnership, which the Energy Commission continues to manage. The bimonthly electronic newsletter to REAlliance members has garnered new members and member organizations that now total 199 members representing 176 organizations, of which 37 became new members this quarter.

## **Tracking and Verification**

The Energy Commission staff is revising the *Consumer Education Program Guidebook* to reflect funding activities focused on tracking and verifying renewable energy generation, as directed by SB 1078. The Energy Commission expects to adopt the updated *Guidebook* during the second quarter of 2004. The Energy Commission is expected to approve the Committee's recommendation that 10 percent of the funds collected for the Customer Credit Program (\$1.4 million annually) be reallocated to the Consumer Education Program for tracking and verification activities in support of the RPS Program. To date, the amount collected totals about \$3.06 million. A detailed discussion of the tracking and verification system is provided in the Renewables Portfolio Standard section of this report.



## Emerging Renewables Program

During the first quarter of 2004, the Energy Commission made payments totaling \$19.3 million for 1,158 system installations, bringing total disbursements to date to about \$130 million. More than 8,200 emerging renewable systems have been installed since the beginning of the program, representing approximately 32 MW of distributed renewable electricity capacity.

Customers installing 4,594 systems hold confirmed rebate reservations for about 19 MW of solar and wind capacity in various stages of completion, encumbering \$73.5 million in rebates. Approximately \$40 million remains available for rebates. Unless funds are added or other measures are taken, total funding allocated to the Emerging Renewables Program (ERP) through 2006 will likely be depleted in 2004.

Recent demand for rebates from the Emerging Renewables Program dropped sharply from when applicants rushed to meet the December 31, 2003 deadline for a higher rebate. The Energy Commission received about 600 applications in the first quarter of 2004 compared to 3,000 received during the previous quarter. Beginning January 1, 2004, the rebate offered for photovoltaic systems dropped by 40 cents per watt, about \$1,600 less for an average 4-kW system. In addition, the state tax credit declined from 15 percent in 2003 to 7.5 percent beginning January 1, 2004, placing additional financial urgency on installing renewable energy systems before the close of 2003.

Along with rebates, the state tax credit continues to be another motivator for consumers considering a solar or wind system. Designed to encourage the installation of systems up to 200 kW, Senate Bill 17XX (SB 17XX, Brulte, Chapter 12, Statutes of 2001) authorized the 15 percent credit for tax years 2001 through 2003, with a 7.5 percent credit for tax years 2004 and 2005.

A worksheet for consumers to apply for the tax credit using a "self-certifying" process is available on the Energy Commission's website at:

**[www.consumerenergycenter.org/renewable/tax\\_credit.html](http://www.consumerenergycenter.org/renewable/tax_credit.html)**

The 40 cent-per-watt drop in the rebate level was originally a 20 cent-per-watt decline; however, the extremely high demand for rebate funds in 2002 and 2003 prompted the need to extend rebate funds. Furthermore, the lower rebate level reflects declining price trends for solar modules. Table V shows the rebate levels offered under SB 1038 through June 2004.

System installation rates continued at historically high levels during the first quarter. Approximately 1,160 systems representing almost five MW of capacity were installed through the ERP this quarter, which is 30 percent higher than the previous quarter, and 70 percent higher than one year ago. Fourteen of the 1,160 installations were wind systems, with the balance being PV systems. San Diego County has the greatest

number of total installations at 1,154 representing 3.8 MW of capacity and \$15.6 million in rebate payments. The City of San Diego also has the highest number of systems of any California city at 428.

**Table V - Emerging Renewables Program  
Summary of Rebate Levels (SB 1038)**

| Eligible System                             | Size               | -----Rebate Level* (\$ per Watt)----- |                      |                     |
|---------------------------------------------|--------------------|---------------------------------------|----------------------|---------------------|
|                                             |                    | 3/3/03 –<br>6/30/03                   | 7/1/03 –<br>12/31/03 | 1/1/04 –<br>6/30/04 |
| <b>Photovoltaic</b>                         | Less than<br>30 kW | \$4.00                                | \$3.80               | \$3.20              |
| <b>Solar Thermal<br/>Electric</b>           | Less than<br>30 kW | \$4.00                                | \$3.80               | \$3.60              |
| <b>Fuel Cells Using<br/>Renewable Fuels</b> | Less than<br>30 kW | \$4.00                                | \$3.80               | \$3.60              |
| <b>Wind</b>                                 | First 7.5 kW       | \$2.50                                | \$2.30               | \$2.10              |
|                                             | 7.5 – 30 kW        | \$1.50                                | \$1.30               | \$1.10              |
| <b>Affordable<br/>Housing</b>               | Less than<br>30 kW | \$5.00                                | \$4.75               | \$4.00              |

\*Owner-installed systems receive a lower rebate (15 percent).

With assistance from the Renewable Energy Program's technical support contractor, KEMA-Xenergy, Inc., the staff continues to update the list of eligible renewable technology equipment and make it available to consumers online and via regular mail. In the first quarter, the KEMA-Xenergy team trained surveyors and began conducting site visits to verify that systems installed through the ERP comply with the program requirements. In the coming quarter the KEMA-Xenergy team will also revise and enhance the ERP website, making the application process easier and enabling participants to check the status of their reservations on the Internet, while maintaining web server security.

The Energy Commission will continue to update funding availability on the program's website at:

**[www.energy.ca.gov/renewables/emerging\\_renewables/funding.html](http://www.energy.ca.gov/renewables/emerging_renewables/funding.html)**

## Customer Credit Program

In April 2003, the Energy Commission discontinued the Customer Credit Program and determined that providers would be paid for eligible 2002 and early 2003 activity, as outlined in the *Customer Credit Renewable Resources Account Report*.<sup>31</sup> During the upcoming quarter, the Energy Commission expects to approve the reallocation of funds collected for the Customer Credit Program to the Emerging Renewables Program and the Consumer Education Program (45 percent and 10 percent, respectively), as recommended in the report. The remaining 45 percent of funds will remain in the Customer Credit program for future reallocation.

To date, the Energy Commission has paid a total of \$65.3 million for customer credits. No payments were made during the first quarter of 2004 because the staff did not receive revised audits from providers. Payments totaling \$30,000 are expected to be made in the second quarter. Once payments are completed, the Energy Commission will discontinue Customer Credit Program activities.

## Summary

Through its administration of the Renewable Energy Program, the Energy Commission continues to achieve its goals for the renewables industry and Californians. Since the Renewable Energy Program began, the following has been accomplished:

- Brought over 429 MW of new renewables capacity on-line, with the potential for new projects to eventually total 1,200 MW of new renewable capacity for California's electric grid. We expect many thousands of MWs to come on-line over the next several years as the RPS program matures.
- Helped 275 facilities remain operative for 4,400 MW of renewables capacity.
- Supported over 200,000 customer purchases of electricity generated by renewable energy before the demise of direct access contracting options for electricity consumers.
- Provided rebates to more than 8,200 customers for installing on-site renewable technology systems, representing over 32 MW of solar and wind capacity, with an additional 19 MW from 4,500 systems that are in various stages of development.
- Assisted Californians in making educated energy decisions by providing information to consumers and Renewable Energy Alliance members statewide about renewable energy and the state's incentive programs, and about how to support renewables in today's marketplace.

The Energy Commission continues its collaboration with the utilities and the CPUC in developing the rules for implementing the RPS and a system to track the utilities' progress and verify their compliance. This work will position California for maintaining and expanding its leadership in developing renewable energy.

## Endnotes

<sup>1</sup> Public Utilities Code (PUC), Article 5, Section 445(g).

<sup>2</sup> As a procedural matter, the Energy Commission submits awards directly to the State Controller for payment, rather than through the Treasurer.

<sup>3</sup> The *Annual Project Activity Reports to the Legislature* are on the Energy Commission's website at [www.energy.ca.gov/renewables/documents/legislature.html](http://www.energy.ca.gov/renewables/documents/legislature.html).

<sup>4</sup> Publication Number 500-00-022, June 2001.

<sup>5</sup> *Energy Action Plan* available on-line at [[www.energy.ca.gov/2003\\_energy\\_action\\_plan/index.html](http://www.energy.ca.gov/2003_energy_action_plan/index.html)]

<sup>6</sup> Energy Commission publication number 100-03-019F, November 2003.

<sup>7</sup> Energy Commission Publication number 500-03-080F, November 2003.

<sup>8</sup> Energy Commission Publication number 500-03-102F, February 2004.

<sup>9</sup> Energy Commission Publication number 500-03-004F, February 2003.

<sup>10</sup> Accounting data might differ from data reported in the text because funds may be returned, credited, or re-paid that are not tracked in real time by program staff.

<sup>11</sup> This amount includes \$15 million transferred from the General Fund pursuant to AB 29X.

<sup>12</sup> This total does not include \$266,000 collected from ratepayers of the Bear Valley Electric Company or \$15,713 in voluntary contributions.

<sup>13</sup> Of this amount, \$3.97 million is for AgBio Program facilities.

<sup>14</sup> The Energy Commission has reallocated \$40 million from the Existing Renewable Facilities Program to the New Renewable Facilities Program for the second auction. However, \$6.2 million of these funds were redirected to the Emerging Renewables Program, thereby reducing the reallocation from the Existing Renewable Facilities Program to the New Renewable Facilities Program to \$33.8 million Pursuant to AB 29X, the Energy Commission reallocated \$15 million from the Existing Renewable Facilities Program to the Emerging Renewables Program in 2001. The Energy Commission reallocated \$10 million in unused funds from the Customer Credit Account to the Emerging Renewables Program in September 2001 and reallocated \$13 million from the Existing Renewable Facilities Program to the Emerging Renewables Program in September 2002. Senate Bill 704 (SB 704, Florez, Chapter 480, Statutes of 2003) directed that \$6.0 million be reallocated from the Renewable Resources Trust Fund for the Agricultural to Biomass Program; these funds were reallocated from the Existing Renewable Facilities Program and are included with those funds in this table.

<sup>15</sup> Unused POEU funds were returned to the General Fund pursuant to SB 19X.

<sup>16</sup> Encumbered for potential reallocation to the New Renewable Facilities Program as winning projects from the third auction come on-line and become eligible for funding.

<sup>17</sup> The Energy Commission conditionally awarded \$162 million at its June 1998 auction, \$40 million at its December 2000 auction, and up to \$40 million at its August 2001 auction.

<sup>18</sup> Encumbered for rebate reservation requests approved but not yet paid.

<sup>19</sup> Encumbered for grant projects.

<sup>20</sup> Committed funds are not yet formally assigned to specific projects, but represent monies reserved to meet statutory requirements.

<sup>21</sup> Funds are committed for making Supplemental Energy Payments under the RPS program.

<sup>22</sup> Of this amount, a minimum of \$3.057 million is committed to date for developing and implementing the RPS tracking and verification system.

<sup>23</sup> \$150 million was loaned to the state's General Fund and \$8.9 million was loaned to the California Consumer Power and Conservation Financing Authority pursuant to the Budget Act of 2002 (Items 3360-011-0382 and 3360-012-0382 respectively). To date, the CPA has made \$3.25 million in repayments.

<sup>24</sup> Payments to ERF facilities for October 2003 through January 2004 generation, and for AgBio facilities for purchases from July through December 2003.

<sup>25</sup> Energy Commission publication number 500-03-023F, June 2003.

<sup>26</sup> Energy Commission publication number 500-03-049F, August 2003.

<sup>27</sup> CPUC Rulemaking 01-10-24.

<sup>28</sup> Energy Commission Publication Number 500-03-108C, February 2004.

<sup>29</sup> The rollover consists of the funds remaining in the ERF after payments have been made to facilities in a given monthly payment cycle. Any funds not paid in one month are rolled over and added to the following month's allocation, becoming available for that month's payments.

<sup>30</sup> After determining the amount of funds needed for reallocation to the New Renewable Facilities Program, any remaining funds shall be available for the ERF under SB 1038.

<sup>31</sup> Energy Commission publication number 500-03-004F, April 2003.